

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Trachtman *et al.*

Application No.: 10/021,249

Filed: December 19, 2001

For: **System and Method for Providing
Broadcast Signals to Aircraft**

Confirmation No.: 7208

Art Unit: 2614

Examiner: Melur Ramakrishnaiah

Atty. Docket: 1487.0330000/DKSC/DRB

Reply Brief Under 37 C.F.R. § 41.41

Mail Stop Appeal Brief - Patents

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants filed a Brief on Appeal to the Board of Patent Appeals and Interferences for the above-captioned application on March 20, 2007. The appeal is directed to the final rejection of claims 1, 3-21, and 23-24 under 35 U.S.C. §103(a), as set forth in the Final Office Action mailed October 5, 2006. The Examiner's Answer was mailed June 7, 2007. In reply to the Examiner's Answer, Appellants submit this Reply Brief under 37 C.F.R. § 41.41.

I. Arguments

The Examiner has maintained the rejection of claims 1, 3-21, and 23-24. In the second paragraph of page 5 of the Examiner's Answer, the Examiner makes the incorrect allegation that the Mitchell patent (US 6,741,841) differs from the claimed invention only in that the Mitchell patent does not disclose a decoding means such as a splitter for separating the communication channels and the broadcast channels. In fact, there is a second difference between the claimed subject-matter and the Mitchell patent that is of crucial importance and which has been incorrectly disregarded by the Examiner: the Mitchell patent does not disclose communications channels and broadcast channels that are separate in frequency.

More specifically, claim 1 recites that "said one or more communications channels are separate in frequency from said broadcast channels"; claim 11 recites that "the transmitting means and the receiving means additionally transmit and receive communication signals in a separate channel [from the broadcast channel in which broadcast signals are received]"; claim 20 recites that "the broadcast data comprises a signal allocated a frequency sub-band separate from the frequency sub-band allocated to the signal comprising the other data"; and claim 21 recites that "the communication data is separate in frequency from the broadcast data" [emphasis added]. The Mitchell patent does not disclose a corresponding feature, but rather discloses that the television programming signals and Internet service signals are within the same frequency bands (see column 25, lines 66 and 67 in combination with column 25, lines 7 to 10). The Examiner has incorrectly disregarded

this additional difference between the claimed subject-matter and the Mitchell patent, and has consequently arrived at an incorrect finding of obviousness.

The Examiner's failure to acknowledge that the Mitchell patent does not disclose television programming signals separate in frequency from Internet service signals has led the Examiner to the incorrect assumption that it would be possible to combine the teachings of the Mitchell patent and the Otten patent (US 6,522,865) in such a manner that the Otten patent's splitter could separate the television programming signals and Internet service signals of the Mitchell patent. Even if one were to assume that the "splitter" disclosed in the Otten patent is a frequency splitter capable of separating signals according to their frequency, Otten patent's splitter would not be successful if incorporated into the arrangement of the Mitchell patent, as the Mitchell patent's television programming signals and Internet service signals are not separate in frequency. Hence, there is no evidence to suggest that the arrangements of the Mitchell patent and the Otten patent are compatible and, thus there is no evidence that a skilled person would have had a reasonable expectation of success in combining the two disclosures.

Moreover, if the Mitchell patent and the Otten patent were to be combined in the manner alleged to be obvious by the Examiner, the resulting combination would still lack Claim 1's feature that "one or more communications channels are separate in frequency from said broadcast channels" (and the corresponding features of claims 11, 20 and 21). Hence, combining the teachings of the Mitchell patent and the Otten patent would not inevitably result in each and every feature recited by the claims.

In addition, given the disclosure of the Mitchell patent, there is no reason why one of ordinary skill in the art would have desired to modify the Mitchell patent to split the television programming signals and the Internet communications from each other as the Examiner has suggested, absent impermissible hindsight. In the fourth paragraph of page 8 of the Examiner's Answer, the Examiner argues that it would have been obvious to modify the Mitchell patent's system to provide a decoding means in order to "separate the signals so that they can be further processed in separate devices as taught by Otten." However, this is a highly artificial argument, which does not identify any need or problem known in the field that would have given the skilled person a reason to modify the arrangement of the Mitchell patent in the manner called for by the Examiner. The Examiner's reasoning that the skilled person would have used the Otten patent's splitter to enable the arrangement of the Mitchell patent to process signals in separate devices is simply unrealistic. The Mitchell patent already discloses that television programming signals and Internet service signals are processed separately without requiring these signals to be separated by a frequency splitter (see Fig. 13 of the Mitchell patent in combination with column 25, line 57 to column 26, line 5, which discloses that television programming signals are processed by a receiver (item 413) that is separate from an internet receiver (such as item 364 of Fig. 11) used to process Internet service signals). Since the arrangement disclosed by the Mitchell patent appears to function adequately without requiring a splitter that separates television programming signals and Internet communications from each other, the incorporation of the Otten patent's splitter would have served no practical purpose. Hence, there would have been no reason to combine the disclosures of the Mitchell patent and the Otten patent without hindsight of the claimed subject matter.

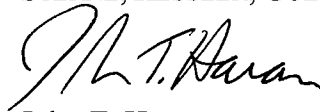
It is noted that the United States Supreme Court recently addressed the issue of obviousness and hindsight reasoning. In *KSR v. Teleflex*, No. 04-1350, slip op. at 14 (U.S. April 30, 2007), the United States Supreme Court reiterated that, "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" (quoting from *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Further, the Supreme Court warned that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. . . . This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." *Id.* at 14-15. The Supreme Court also confirmed that, "[a] factfinder should be aware, of course, of the distinction caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning." *Id.* at 17.

II. Conclusion

In light of the arguments above, as well as those set forth in Appellants' Brief on Appeal filed March 20, 2007. Appellants respectfully submit that the rejection of claims 1, 3-21, and 23-24 under 35 U.S.C. §103(a) is improper and should be reversed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



John T. Haran
Attorney for Applicants
Registration No. 58,010

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1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600
703147